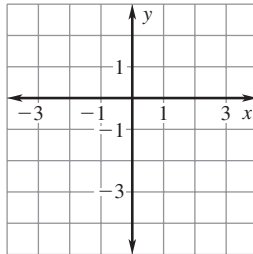


LESSON
10.3**Practice C**

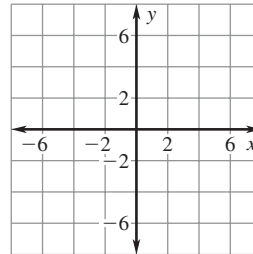
For use with pages 643–651

Solve the equation by graphing.

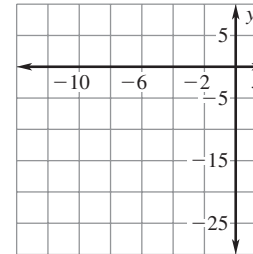
1. $x^2 = 4$



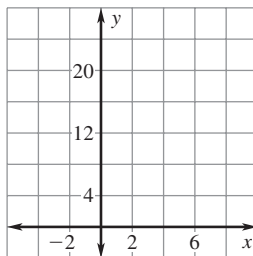
2. $x^2 + 3x = 4$



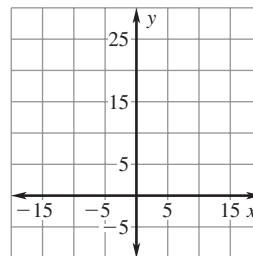
3. $-x^2 - 14x - 49 = 0$



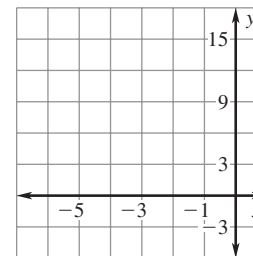
4. $-x^2 + 6x + 16 = 0$



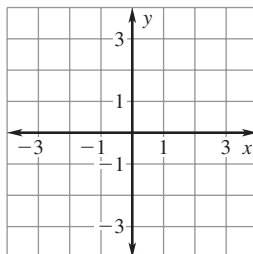
5. $x^2 + 10x + 25 = 0$



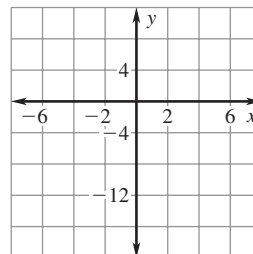
6. $x^2 + 8x + 15 = 0$



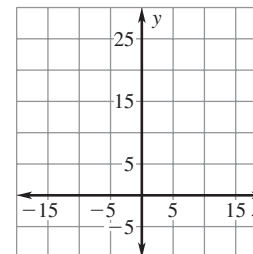
7. $x^2 + 2 = 0$



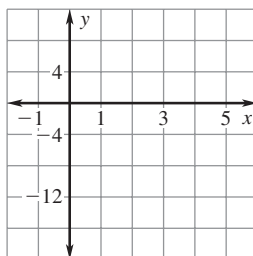
8. $x^2 = 4x + 12$



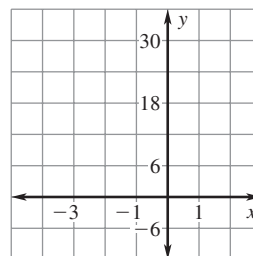
9. $-x^2 + 25 = 0$

**Find the zeros of the function by graphing.**

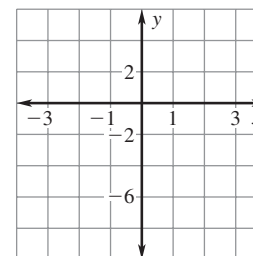
10. $f(x) = 2x^2 - 8x - 10$



11. $f(x) = -3x^2 - 6x + 24$

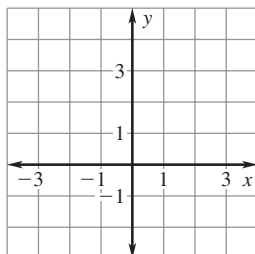


12. $f(x) = 4x^2 - 4x - 8$

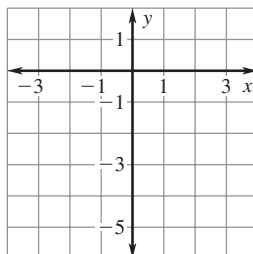


LESSON
10.3
Practice C
For use with pages 643–651
Approximate the zeros of the function to the nearest tenth by graphing.

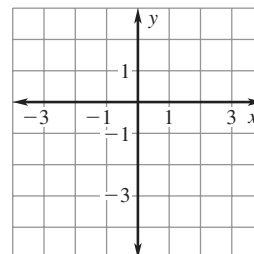
13. $f(x) = -2x^2 + 5x + 1$



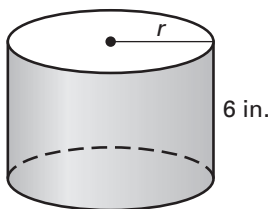
14. $f(x) = 3x^2 - 5$



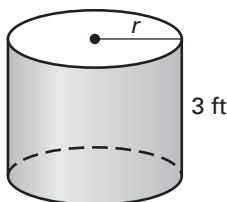
15. $f(x) = 4x^2 - 3x - 4$


Use the given surface area S of the cylinder to find the radius r to the nearest tenth. (Use 3.14 for π .)

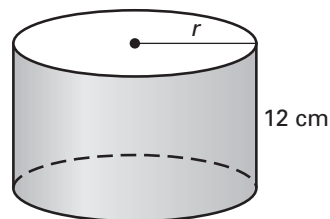
16. $S = 301 \text{ in.}^2$



17. $S = 58 \text{ ft}^2$

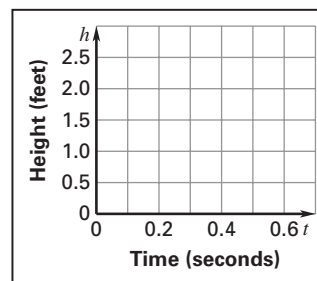


18. $S = 1356 \text{ cm}^2$



- 19. Jumping** A cat jumps from a countertop 30 inches above the floor. It jumps with an initial vertical velocity of 5 feet per second.

- Write and graph a function that models the height h (in feet) of the cat t seconds after it jumps. *Explain* how you got your model.
- How far above the ground is the cat after one half of a second?
- How long does it take the cat to reach the ground?



- 20. Basketball** A basketball player throws a ball towards a hoop at a height of 6 feet with an initial vertical velocity of 50 feet per second.

- Write and graph a function that models the height h (in feet) of the ball t seconds after it is thrown.
- If the player misses the hoop completely and the ball lands on the ground, how long was the ball in the air?
- If an opposing player catches the ball at a height of 5 feet, how long was the ball in the air? *Explain* your reasoning.

